

- than ζ ; θ the same as η , but still nearer to the eye; ι where η and θ merge into one outline; κ the cavity between the outer and inner walls of ι' ; λ hollow of the tentacle; μ entrance to λ ; σ superior margin of the socket from which ι' arises. 200 diameters.
- Fig. 4. The same as fig. 3, but seen from below, with the following additional letters: ν the same as λ , but fore-shortened by the curvature of the tentacle; ξ the inferior margin of the socket from which the tentacle arises; π the broad line of attachment of the veil (ι). 200 diameters.
- Fig. 5. Inferior side of a quarter of figs. 5 and 20 of Pl. XI^b, principally to show the branching of the radiating canals, the extent of the veil, and the fringes (a) of the proboscis. 24 diameters.
- Fig. 6. The fringes (a) of the proboscis of fig. 5 in profile.
- Fig. 7. Cells (c) and lasso-cells (a b) from the upper surface of the disk of fig. 9. 500 diameters.
- Fig. 8. The same as d' fig. 2, more enlarged. a entrance; β dorsal side toward the outer veil; γ profile of the wall at the dorsal side of the bend; δ profile of the lower side of the curve. 100 diameters.
- Fig. 9. View similar to fig. 4, from the same ephyra as fig. 2. The letters as in fig. 4 excepting ϵ , which is the outer wall of a very young lobule developing between the larger ones; ρ cavity of the young lobule (ϵ); τ groups of lasso-cells. 100 diameters.
- Fig. 10. Cellular tissue from the proboscis of an adult *Aurelia*, treated with alcohol. 500 diameters.
- Fig. 11. The eye and the immediate organs, seen obliquely from the outer end. In addition to the general lettering, there is a the entrance to d' ; β the dorsal side of the external half of d' ; γ profile of the wall at the bend of d' ; ϵ ζ the wall of d' . 200 diameters.
- Fig. 12. The same as fig. 10, but in a natural state. 500 diameters.
- Fig. 13. Similar to fig. 3, but from fig. 5. The figures 1 2 3 refer to the tentacles, from the oldest to the youngest. Lettering as in fig. 2, with this difference, that ξ is seen through the tentacles; τ where the outer wall of the tentacles passes into that of its neighbor. 100 diameters.
- Fig. 14. Profile sectional view of the walls of the hydra stem of *Coryne mirabilis*. a the horn-like sheath; b cells of the outer wall; b' mesoblast of b ; c the same as b , seen in the distance; d cells of the inner wall; d' brown cells; e the same as d , in the distance. 500 diameters.
- Fig. 15. A lasso-cell from the outer wall of fig. 14.
- a the cell wall; b the straight part of the thread; c d e the first, second, and third coils; f aperture of the cell and base of b . 2,000 diameters.

PLATE XII.

PELAGIA CYANELLA, *Pér.* and *LeS.*

[Drawn from nature by J. Burekhardt.]

- Fig. 1. Profile view, natural size.
- Fig. 2. View from below, the mouth appendages being removed. a arms; b ovaries; c mouth; d tentacles; e eyes.
- Fig. 3. View from above. a eyes; b chymiferous tubes; c digestive cavity; d tentacles.
- Figs. 4 to 16. Planulae and ephyra of the same.
- Fig. 4. Young planula, seen in profile.
- Fig. 5. Older planula, seen in profile.
- Figs. 6 and 7. Older planula, seen from above, and in profile.
- Figs. 8 and 9. Passage of the planula into the ephyra, in profile fig. 8, and from below fig. 9.
- Figs. 10 and 11. Young ephyra, in profile and from below.
- Fig. 12. Older ephyra, from below. c mouth; b eyespecks; a position of the tentacles at a more advanced period.
- Fig. 13. Magnified spheromere in connection with the mouth. a chymiferous lobes; b eye; c mouth.
- Figs. 14 and 15. Magnified eyes. a eye proper; b chymiferous tube of the eye.
- Fig. 16. Magnified mouth, still simple and without arms.

PLATES XIII. and XIII^a.POLYCLONIA FRONDOSA, *Ag.*

[Drawn from nature by J. Burekhardt.]

PLATE XIII. Profile view and various structural details of *Polyclonia frondosa*.

- Fig. 1. Profile view of our *Polyclonia* (the *Medusa frondosa* of Pallas), with the oral appendages drawn up under the disk.
- Fig. 2. The same, seen from below, different parts being removed in different segments and shown in a different condition in each. o o eyes, twelve in number. In segments 1 and 2 may be seen the two branches of one arm with their marginal lobes entire, and